NATIONAL OCEANIC and ATMOSPHERIC ADMINISTRATION



NESDIS Procedures for Handling Space Segment Change Requests for the Polar-Orbiting Operational Environmental Satellite System

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Document Control

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1. Introduction

The Polar-orbiting Operational Environmental Satellite (POES) Program Manager (PM), organizationally located within the Office of Systems Development (OSD), a part of the National Environmental Satellite, Data and Information Service (NESDIS), is responsible for executing the total satellite program throughout its life cycle. The program manager's responsibilities include ensuring that appropriate resources for research and development, requirements definition, satellite operations and support, and the delivery of products are provided to support mission objectives assigned by the National Oceanic and Atmospheric Administration (NOAA), as defined in NOAA 208-3 - Major Systems Acquisition [Reference 1].

Within the scope of the program manager's responsibilities is the need to manage changes to the approved program as they occur. Of particular concern are those changes that affect NOAA's mission objectives, approved program funding levels, or program milestone or schedule commitments. For these changes on the POES program, the procedure provided herein defines the levels of review and steps for processing Configuration Change Requests (CCRs) within NESDIS.

1.1 Background

NESDIS manages and operates the POES system while acquiring replacement satellites, launch vehicles and launch services through interagency agreements with the National Aeronautics and Space Administration (NASA). In accordance with interagency agreements, NASA acquires NOAA's satellites, provides individual satellites in response to NOAA's direction, launches each satellite into its desired orbit, validates its on-orbit performance, and actively coordinates with NOAA program management information as required to conduct its assigned tasks [Reference 2]. NASA implements configuration management responsibilities on the NASA/POES program as documented in the *POES Configuration Management Plan* [Reference 3] and the *POES Ground System Configuration Management Plan for Launch and Early Orbit and Activation and Evaluation* [Reference 4]. Monitoring of NASA's acquisition activities for NOAA is accomplished by the NOAA/System Acquisition Office (SAO). All CCRs generated by NASA requiring NOAA coordination pass through the SAO for distribution to NESDIS.

For the POES Ground Segment, NESDIS implements operational management responsibilities through the Office of Satellite Operations (OSO) and Office of Satellite Data Processing and Distribution (OSDPD). Formal configuration management procedures for ground segment elements operated and maintained by these two organizations are covered in their respective CM documents.

In recognition of the overall responsibilities of the POES Program Manager, and as clarification and amplification to existing configuration change procedures citing the need for the program manager's review and approval, the following procedure for processing CCRs on the POES program is established.

1.2 Purpose

The purpose of this procedure provided herein is to delineate the internal POES Program Management administrative and technical processes for reviewing CCRs/waivers submitted by NASA for disposition by NESDIS. This procedure also provides guidance to NOAA/NESDIS organizational elements that may be involved in preparing inputs to the NESDIS response.

1.3 Scope

This document is applicable to planned and future satellite capabilities as documented in CCRs by NASA that are believed to have an impact on the POES system and its ability to support NOAA's mission objectives, approved program funding levels, program milestones or schedule commitments. CCR's may also cover requests for deviations and waivers to approved baseline performance levels or system baselines in POES documentation that are under configuration control. In addition to the POES program, these procedure guidelines are also applicable to CCRs related to foreign instruments on POES satellites.

1.4 Applicable Reference Documents

- 1. National Oceanic and Atmospheric Administration, *Major Systems Acquisitions*, Washington DC: U.S. Department of Commerce, NAO 208-3, October 1994
- 2. National Aeronautic Administration and the National Oceanic and Atmospheric Administration of the U.S. Department of Commerce, *Memorandum of Agreement Between for Cooperation in the Polar-orbiting Operational Satellite Program (POES)*, April 1998
- 3. National Aeronautics and Space Administration, *Polar Operational Environmental Satellites* (*POES*) *Project Configuration Management Plan*, GSFC-S-480-83, March 29, 1996
- 4. National Aeronautics and Space Administration, *Polar Operational Environmental Satellite* (POES) Ground System Configuration Management Plan for Launch and Early Orbit and Activation and Evaluation, February 1996
- 5. National Oceanic and Atmospheric Administration, NOAA/NESDIS Ground Systems Configuration Management Procedures for Satellite Operations, February 1998

2. Program Management Review Procedures

2.1 Review Levels

There are up to three levels of review for each CCR received by POES Program Management. These include:

- a) review by the POES Program Manager,
- b) review by the designated Staff Coordinator, and
- c) review by the NESDIS organizations and staff affected by the proposed change as described in the following paragraphs.

The processing of CCRs by POES Program Management will be accomplished by following the steps described herein. Only those necessary reviews required for each change will be accomplished.

2.2 Change Priorities

In responding to the unique nature of individual changes, the processing of changes must respond to the timeliness requirements of their impact on the program. POES Program Management will respond to CCRs with assigned priorities as follows:

Emergency: CCRs assigned a priority of "Emergency" may be telephoned, e-mailed, or

delivered through personal contact to the POES Program Management Office. These changes will be processed immediately, generally completed

within 24 hours.

Urgent: CCRs assigned a priority of "Urgent" will be processed within a total of five

(5) working days upon receipt of the change by the POES program office.

Routine: CCRs assigned a priority of "Routine" will be processed within a total of 15

working days upon receipt of the change by the POES program office.

<u>Note:</u> All processing time durations provided in the three categories above include the processing time required by the program office as well as the time required for analysis by the NOAA organizational elements. The analysis required and time of performance details will be stated in the cover memo which will accompany each CCR/waiver.

2.3 Processing Steps

The functional process flow for CCR/Waiver reviews followed by POES Program Management is shown in Figure 2-1, and the major steps, roles and responsibilities are described in the following paragraphs. A table showing the primary POES program management staff responsible for various type of issues is presented in Appendix-A.

2.3.1 Receipt of CCR by NESDIS

All CCR's/waivers requiring the review and approval of NESDIS will be routed to the POES Program Manager. Each CCR/waiver will be logged in and a completion date for its review established, by the Program Manager.

2.3.2 Program Manager's Assessment and Processing Assignment

The POES Program Manager provides for the appropriate level of review for all CCRs/waivers received requiring an input from NESDIS that are believed to have an impact on the capabilities of the POES system to support NOAA's mission objectives, approved program funding levels, or program milestones or schedule commitments.

Upon receipt of a CCR/waiver from SAO the program manager and appropriate staff will perform an initial review to determine:

- a) the nature and potential impact of the change,
- b) the technical and/or executive level of review required to provide a NESDIS response,
- c) it's stated priority/duration for processing, and
- d) the response date for the CCR/waiver.

Questions on the priority and need for the change may be resolved at this time through discussion with the SAO.

Based on the initial review results the POES Program Manager will undertake the following actions as necessary:

- a) For CCRs/waivers requiring further review, the POES PM will assign a PM staff, with responsibilities for the areas potentially affected by the CCR, to complete the actions required as described in paragraph 2.3.3.
- b) For CCRs/waivers not requiring any additional review, the POES PM will provide the NESDIS response to the SAO, as stated in paragraph 2.3.6. The CCR/waiver will be considered closed on the date the response is provided to SAO.

2.3.3 PM Staff's Review and Coordination

The PM Staff, assigned by the program manager, provides for the identification, coordination and consultation among the NESDIS organizational elements potentially affected by the CCR/waiver. The responsible PM staff will review the CCR and determine all the organizational elements within NESDIS that need to review the change and assess its impact on their areas of responsibilities. The PM staff will then forward copies of the CCR to the appropriate offices within NESDIS requesting their review as described in paragraph 2.3.4. Appropriate response dates, priority and point-of-contact will be established and reflected in a transmittal memo.

Following receipt of all responses from within NESDIS, the PM staff will consolidate all inputs into a draft response document for review by the POES Program Manager. In preparing the draft response document, the PM staff may find it necessary to request meetings or additional reviews to compose the proposed NESDIS response. The fully coordinated draft response document will be provided to the POES Program Manager for review and signature as described in paragraph 2.3.5.

2.3.4 NESDIS Organizational Element Coordination

NESDIS organizational elements (ie., Offices, Divisions, POPs, etc.), supporting the POES mission, may be requested by the PM staff to review selected CCRs/waivers and to submit their assessments. Such elements will provide for the evaluation/analysis, as appropriate, to investigate the impact of the CCR/waiver within the allotted time and budget constraints. At the conclusion of the evaluation the elements shall submit their written recommendation of their approval, approval with condition, or rejection with corrective action of the CCR/waiver to the PM staff.

The support provided by NESDIS elements in reviewing CCR/waiver will be accomplished within the established organizational responsibilities assigned to each office. Where appropriate, existing configuration management procedures for operational systems may be used in evaluating changes.

In the event, that an organizational element needs additional information for their review, it is strongly recommended that they obtain such data through the collaboration of the PM staff or the point-of-contact assigned for the review and not circumvent this process.

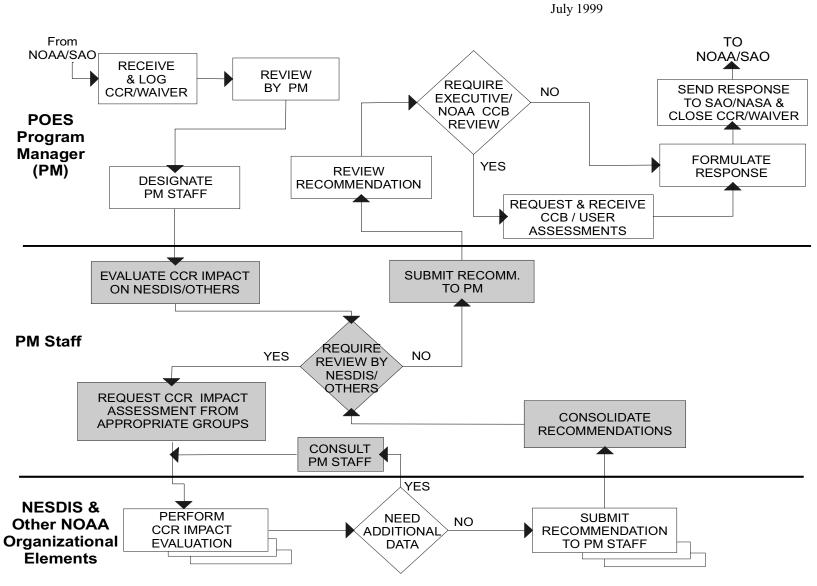
2.3.5 Program Manager's Executive Review and Coordination

Based on inputs from the PM staff, the POES Program Manager will provide the NESDIS level response for each CCR/waiver.

For certain CCR/waiver, the POES PM may request reviews from other NESDIS organizational elements and POES users, including a formal NOAA Configuration Change Board (CCB) level meeting.

2.3.6 NESDIS Response

The POES Program Manager will provide the NESDIS response to NOAA/SAO for each CCR/waiver in accordance with its processing priority. The CCR/waiver will be considered closed on the date the response is provided to SAO.



Issue 1

Figure 2-1 POES Program CCR/Waiver Evaluation Process Flow Diagram

Appendix - A

POES Program Management Staff Areas Of Responsibility.

Item/System	Primary Staff Member	Backup
AMSU -A	P. Taylor	J. Silva
AMSU-B / MHS	P. Taylor	A, Wade
AVHRR	A. Wade	J. Silva
DCS / A-DCS	A. Wade	J. Silva
HIRS	P. Taylor	A. Wade
SBUV	J. Silva	P. Taylor
Search & Rescue (SARP/SARR)	A. Wade	J. Silva
SEM	J. Silva	P. Taylor
Spacecraft Bus	A. Wade	J. Silva